

Ice Seasonality Investigation

River Freeze-Up Data Sheet

School Name: _____ Study Site: ICE- _____

Observer Names: _____

Date: Year: _____ Month: _____ Day: _____

Local Time (hour:min): _____ Universal Time (hour:min): _____

General Freeze-Up Ice Observations:

Upstream (border ice only):	
Estimate fraction of width covered by border ice: _____ %	
Changes in border ice:	<input type="checkbox"/> None <input type="checkbox"/> Fractured <input type="checkbox"/> Flooding <input type="checkbox"/> Movement
Downstream (border ice only):	
Estimate fraction of width covered by border ice: _____ %	
Changes in border ice:	<input type="checkbox"/> None <input type="checkbox"/> Fractured <input type="checkbox"/> Flooding <input type="checkbox"/> Movement
Across stream (ice in open water only):	
Ice types:	<input type="checkbox"/> None <input type="checkbox"/> Frazil <input type="checkbox"/> Pancakes (< 3 m across) <input type="checkbox"/> Floes (> 3 m across)
Frost smoke?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Ice surface: (may choose more than 1)	<input type="checkbox"/> Smooth <input type="checkbox"/> Rough <input type="checkbox"/> Blocky/Broken/Jumbled <input type="checkbox"/> Wet/Flooded <input type="checkbox"/> Holes/Leads <input type="checkbox"/> Bare (melting) <input type="checkbox"/> Ice jam
Snow on ice:	<input type="checkbox"/> None (cold) <input type="checkbox"/> New, patchy <input type="checkbox"/> New, continuous <input type="checkbox"/> Stable with new snow layer <input type="checkbox"/> Stable/No change <input type="checkbox"/> Wind redistributed <input type="checkbox"/> Icy crust <input type="checkbox"/> Melting/Wet <input type="checkbox"/> None (warm)
Snow on bank/shore:	<input type="checkbox"/> None <input type="checkbox"/> New, patchy <input type="checkbox"/> New, continuous <input type="checkbox"/> Stable with new snow layer <input type="checkbox"/> Stable/No change <input type="checkbox"/> Wind redistributed <input type="checkbox"/> Icy crust <input type="checkbox"/> Melting/Wet

Environmental Observations:

Cloud Cover:	<ul style="list-style-type: none"> <i>If Three-quarters or More of the Sky is Visible: (Check one)</i> <table border="0"> <tr> <td><i>No Clouds</i></td> <td><i>Clear</i></td> <td><i>Isolated</i></td> <td><i>Scattered</i></td> </tr> <tr> <td><input type="checkbox"/> 0%-No Clouds</td> <td><input type="checkbox"/> <10% Clouds</td> <td><input type="checkbox"/> 10-25% Clouds</td> <td><input type="checkbox"/> 25-50% Clouds</td> </tr> </table> <i>Broken</i> <i>Overcast</i> <table border="0"> <tr> <td><input type="checkbox"/> 50-90% Clouds</td> <td><input type="checkbox"/> >90% Clouds</td> </tr> </table> <i>If View of More than One-quarter of the Sky is Blocked:</i> Obscured <input type="checkbox"/> Check here <p><i>Why is the view of the sky blocked? (Check all that apply)</i></p> <table border="0"> <tr> <td><input type="checkbox"/> Blowing Snow</td> <td><input type="checkbox"/> Heavy Snow</td> <td><input type="checkbox"/> Heavy Rain</td> <td><input type="checkbox"/> Fog</td> <td><input type="checkbox"/> Spray</td> </tr> <tr> <td><input type="checkbox"/> Volcanic Ash</td> <td><input type="checkbox"/> Smoke</td> <td><input type="checkbox"/> Dust</td> <td><input type="checkbox"/> Sand</td> <td><input type="checkbox"/> Haze</td> </tr> </table> 	<i>No Clouds</i>	<i>Clear</i>	<i>Isolated</i>	<i>Scattered</i>	<input type="checkbox"/> 0%-No Clouds	<input type="checkbox"/> <10% Clouds	<input type="checkbox"/> 10-25% Clouds	<input type="checkbox"/> 25-50% Clouds	<input type="checkbox"/> 50-90% Clouds	<input type="checkbox"/> >90% Clouds	<input type="checkbox"/> Blowing Snow	<input type="checkbox"/> Heavy Snow	<input type="checkbox"/> Heavy Rain	<input type="checkbox"/> Fog	<input type="checkbox"/> Spray	<input type="checkbox"/> Volcanic Ash	<input type="checkbox"/> Smoke	<input type="checkbox"/> Dust	<input type="checkbox"/> Sand	<input type="checkbox"/> Haze
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Wind*:	<input type="checkbox"/> Calm (<0.3 m/s) <input type="checkbox"/> Light wind (0.3-5.5 m/s) <input type="checkbox"/> Windy (>5.5 m/s)																				
Precipitation type:	<input type="checkbox"/> None <input type="checkbox"/> Snow flurries <input type="checkbox"/> Snowing <input type="checkbox"/> Fog/Drizzle <input type="checkbox"/> Rain <input type="checkbox"/> Freezing rain																				

*See *Ice Seasonality Investigation Field Guide* for definitions.

Environmental Observation Comments:

Standard Photograph Set of River Ice Freeze-Up:

When you download the photos from your camera, rename them to follow the convention *study site ID_date_photo view* (so the format would be: *ICE-99_YYMMDD_XXXXXX* where *XXXXXX* is *Up, Down, or Across*).

Enter the filename, and optional comments, for each photo here:

Across photo:	ICE-_____Across
Comments:_____	
Upstream photo:	ICE-_____Up
Comments:_____	
Downstream photo:	ICE-_____Down
Comments:_____	

Optional Additional Photographs of River Ice Freeze-Up:

Enter the filename of each photo and accompanying comments here:

Additional photo 1:	ICE-_____
Comments:_____	
Additional photo 2:	ICE-_____
Comments:_____	
Additional photo 3:	ICE-_____
Comments:_____	

Other Comments:
